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On Classification for Scientific
and Medical Libraries

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BY

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Read at the Annual Meeting of the Library Association, held at Plymouth,
September 15-19, 1885, and Reprinted from the *Library
Chronicle* for Aug.-Sept. 1886.



LONDON:

DRYDEN PRESS: J. DAVY & SONS, 137, LONG ACRE.

1886.





ON CLASSIFICATION FOR SCIENTIFIC AND MEDICAL LIBRARIES.

THE question of classification having been proposed as a subject for discussion at this meeting of the Association, I venture to offer the following remarks, looking at the subject wholly from a "special" point of view.

I would at the outset state that this paper is, as its title indicates, confined to classification in scientific and medical Libraries. Of the wants of general Libraries in this respect I have had no experience, and therefore will not presume to speak on that part of the subject.

I cannot agree with those persons who think that a system of classification may be worked out which shall be applicable to all Libraries. To me it seems quite impossible that any scheme suitable for a large general Library could be of the slightest use in a special Library.

If we are to settle this vexed question once for all, it can, I think, only be done by having the wants of each class of Libraries fully stated. The Librarians of the chief Public Libraries are agreed that they require some extensive system of classification, and there is little doubt but that they will be able to draw up a scheme by which these Libraries can all be classified in a tolerably uniform manner. But for the more special Libraries on whose behalf I venture to speak, I do not think any elaborate system of classification either on the shelves or in the catalogue desirable. Professor Stanley Jevons seems to me to exactly meet the facts of the case when he says: "Classification by subjects would be an exceedingly useful method if it were practicable, but experience"—or, indeed, a little reflection—shows it to be a logical absurdity."¹ The chief systems of classification have been brought together and well summed up by Mr. E. C. Thomas.² Mr. Taylor Kay, in an article on *The Classification of Literature*, in the *Nineteenth Century* for October, 1884, stated that he had before him 114 different schemes of classification. But after all this labour and the bringing forth of so large a family of classifications, I cannot see that any advantage could be gained by putting any of them into operation in special scientific or medical Libraries.

I would here say that by what has gone before I do not by any means imply that books should be placed higgledy-piggledy on the shelves of a Library. There can be

¹ Principles of Science, II. 402.

² TRANSACTIONS of the Library Association, Cambridge Meeting, 1882, p. 180.

no doubt that a certain amount of classification is of great service. What I do object to is attempting to do on the shelves that which can be done so much better by a properly made index catalogue. To the amount of classification necessary and useful I will refer again.

In the article before alluded to, Mr. Taylor Kay writes: "But within the last two centuries the domain of intellectual knowledge has not only become enlarged, but its divisions have become clear, exact, definite and decided." I should have thought that certainly as regards natural science the exact reverse of the latter part of this sentence was the truth; for never was there a time when more books were published whose sole object seems to be to bridge over the gulf hitherto existing between two different branches of science. To take an example: not so many years ago Zoology and Palæontology were distinct subjects, each represented by text books of its own, and between which a boundary line could be drawn. But at the present time what book is there treating of Zoology which ignores fossil forms. It is now made a point by teachers in both these branches to illustrate their subject by reference from one to the other. The Palæontologist shows the relationship between his extinct species and those now inhabiting the globe; the Zoologist teaches how the recent specimens under his care are the lineal descendants of those whose record is only in the rocks.

The foregoing remarks are intended to point out that the boundary line between certain divisions of science is not, as Mr. Kay states, sharp and definite; and this applies not only to the subject just spoken of but to nearly every branch of science, and to such an extent that it is quite impossible to take any set of headings and fit your books into them, so that the readers in a Library may, by going to the shelves, find all the information they require.

Whilst engaged on the Catalogue of the Students' Library at the Radcliffe Library I had another example of the difficulty of deciding to which classes certain books belong. The catalogue in question is one of a collection of text books and monographs for the use of students, and is arranged in accordance with the subjects as taught in the Museum. This catalogue was sent round in proof to the several Professors with the request that they would revise it as they thought fit. The result was that in not a few instances the same book was put down by more than one Professor as belonging to his own special department. With some books we were obliged to enter them under both headings. In such a small collection of what might be called plain-sailing books, this was not of much moment, but it well illustrates the very considerable difficulty which exists in attempting, on a large scale, to place books under any number of arbitrary divisions. And this remark applies not to books of collected essays dealing with a variety of subjects, but to many of those which, at first sight, or from a study of their titles only would seem to present but small difficulty. Mr. Dewey's system of classification being intended for general libraries, it is hardly fair to expect it to answer the purpose of special ones, and any one attempting to carry out such a classification in a scientific library would soon find himself in hopeless confusion. This, however, is

an argument in favour of my contention, viz. : that no scheme can be propounded which shall be suitable both to general and special libraries. I would here give an illustration or two to show that the carrying out of a plan laid down on Mr. Dewey's lines would be of little use to a reader in a scientific library. Mineralogy is placed as a sub-heading to chemistry, yet nearly all good books on geology treat largely of mineralogy, and, in fact, there are many books professedly treating of both geology and mineralogy. I venture to think that chemistry is not the first heading to which a stranger to the system would go for mineralogy. Or again, take a book dealing with the life history of fishes, would this go under comparative anatomy, embryology, or zoology, sub-class fishes? No doubt it would be correctly classed under either heading and neither division would be complete without it. In a good index catalogue it is easy to overcome this difficulty by entering the book in all these places, but I cannot imagine any system, either of "duplicate entries" or "cross references" by which this can be done on the shelves. To take one more instance, suppose a reader to be working up material for a monograph on the horse, with a well-made index catalogue he turns up the word "horse" and finds all the information set out for him. With a classification made under a series of set headings as advocated by Mr. Taylor Kay, he must, for the anatomy, go to comparative anatomy; for the diseases to veterinary medicine; for the different breeds to zoology; for the paces to animal mechanics; for horse shoes and shoeing I presume to useful arts. Which of these two is the easier is, I think, very plain. I am aware there is an index to Mr. Dewey's scheme by which this information can be hunted up, but for my own part, I always look with grave suspicion on a catalogue that requires either an index or a long preface to explain its working.

As regards these systems of classification, I think it should be borne in mind that the most expert cataloguer must frequently come across books which give a vast amount of trouble to determine their exact place among the classes in the catalogue. And when all this is settled it must not be forgotten that the same difficulty will present itself to the mind of each reader who wishes to hunt up this particular subject. In the latter case the difficulty is increased by the fact that in all probability the reader is not as familiar with the system as the cataloguer. In addition to this it is more than probable that cataloguer and reader will come to different conclusions as to where the particular subject should be sought for. In a properly made index catalogue this is well nigh impossible.

The one great argument used by persons in favour of minute shelf-classification is that with a library so arranged, you can take a reader to the shelves and place him face to face with all the books on the subject at which he is working. I have already pointed out, however, how many books there are treating equally of two separate subjects, and I confess I cannot see how any system of cross-references or duplicate entries can be used so as to make these books useful, or perhaps I should say visible, under two separate headings. The only possible way to do this is by extra copies, and

I think all will agree with me that books multiply quite fast enough without going in for duplicate copies to carry out a system which must be even then imperfect.

But besides the objection just urged there seem to be many others, at least in the Libraries about which I am speaking, against the utility of classification either on the shelves or by a Catalogue. Against shelf-classification one other great objection is waste of room, through being obliged to bring books of dissimilar sizes together. To take one example: if you have a shelf for Histology it must contain Klein's Elements of Histology, a book $6\frac{1}{2}$ inches high, and also Klein and Noble Smith's Atlas of Histology, a book $12\frac{1}{2}$ inches high. This may not be so serious an objection in a Library where space is no object, but personally I have not yet come across that Librarian's Paradise.

My predecessor in the position I now hold, in a paper read at the Conference of Librarians, pointed out another blot in this system in Libraries where books are lent out, viz., that the leading books may be out when the shelf is consulted by the reader. It may perhaps be argued that this is so under any circumstances, but I would point out that a properly arranged index Catalogue enables the reader to obtain the whole strength of the Library on his subject, independently of whether the books are actually on the shelves at the moment or not.

Now comes that which to me is the greatest difficulty of all, as regards Classification on the shelves of either Scientific or Medical Libraries. I mean the vast Periodical Literature of the day. Any Bibliography ignoring the papers printed in the numerous Journals and Transactions would be absolutely useless. In fact, I think all will agree, that it would not be worth the time occupied in compiling it. The impossibility of showing on the shelves anything except separate publications seems to me, to at once stamp this system as useless, in the class of Libraries to which this paper relates. With a good index Catalogue all the chief periodical literature can be laid before a student, and I venture to think that no Catalogue has yet been issued, in which this has been so thoroughly and so well done as in the Index Catalogue to the Surgeon-General's Library at Washington.

For my own part I confess it is the best Library Catalogue I have ever seen, and this opinion is given not after a casual examination of the Catalogue, but from continual use of it. By this Catalogue it is possible to get at all the leading information on any subject, not only of separate publications but also of the papers scattered through the chief periodicals. With a Catalogue of this description kept up to date, a reader can obtain his information in a very short time and with little or no difficulty. There is no waste of time in considering under what heading any subject is placed, as there is in a classified Catalogue: for example if books on Abscesses are wanted, that word is turned up and all the literature in the Library seen at once.

I will now venture to lay down the lines on which I would arrange a scientific or medical library. In the first place, I would separate the journals and transactions from the rest of the library. This I hold to be a very important point: so many

readers come to libraries of this description to hunt up the periodical literature or to verify references already made that it is of the utmost consequence to have these books all together : if possible it is a good plan to have them in a separate room or series of rooms. I have always found it better to arrange the periodicals apart from the transactions, the former put together roughly in subjects ; that is to say, in a scientific library I put together all the journals on botany, anatomy and physiology, chemistry, &c., each under its separate heading, reserving a special place for those which treat of a variety of subjects.

The transactions I arrange by countries, and I have found it a most useful plan, especially with the scientific transactions, to keep the 4tos. in the wall-cases and the 8vos. in floor-cases standing at right-angles to the wall ; this, however, is a mere matter of detail, and must depend upon the style of the library. This latter remark applies also to the separation of transactions from journals. The plan here suggested is suitable for libraries where the books can be in one room ; then the journals stand on one side and the transactions on the other. If, on the other hand, a building has to be dealt with consisting of a series of small rooms, I think it would be better not to separate the transactions from the journals, but to put both together in subjects as far as possible. The remaining books of a library I would treat much in the same way as the periodicals, that is to say, arrange them on the shelves roughly in the subjects to which the library is devoted. The books at the Radcliffe Library are on the shelves under the following headings : philosophy, mathematics, astronomy, geography and physical geography, physics, mineralogy, geology and palæontology, voyages and travels, anatomy and physiology, zoology, botany, medicine, biography, and miscellaneous. The wider subjects, such as zoology and medicine, are still further sub-divided into certain broad chief-headings, so that, for example, books on the mammalia are apart from those on fish, &c. It may be urged, that is really shelf-classification : I would, however, answer that it is not so at all in accordance with the views of those who try to arrange their books so that they may send the readers to the shelves and present to them the strength of the library on any given subject. I think I have shown that in scientific or medical libraries this is well nigh impossible. The amount of classification here advocated is very useful for finding books : for instance, when a reader presents an assistant with a list of references, it is more than probable that all the books required will be in close proximity to one another, and so considerable time is saved in getting them together. The best way of keeping the various subjects together as the library grows is to supplement the wall-cases with floor cases standing as nearly opposite as possible. These floor cases are numbered to correspond with the wall-cases : for example, suppose geology to be in case 4, the floor-cases would be 4 *a*, 4 *b*, &c. It is well-nigh impossible to keep the large folios with the small books ; these should have separate cases. I have not mentioned collections of dictionaries and books of reference because these are necessarily essential to the proper working of any library, be the system of classification what it may.

In conclusion, I would say that I have not attempted in this paper to bring forward any novel views, but simply to state what in actual practice I have found the best plan to pursue in this very vexed question of classification. To sum up, I have come to the conclusion that in such libraries as those of which I have been speaking, any elaborate classification on the shelves for purposes of reference is undesirable, and, in fact, impossible. A rough amount of shelf-classification is useful for facilitating the finding of books. An index-catalogue is absolutely necessary, and periodical literature should be included in this, as far as possible. Perhaps I may here be allowed to allude for a moment to a paper of mine published in the Edinburgh volume of the TRANSACTIONS of this Association, entitled "An Index to Scientific Bibliographies." In that paper I advocated making use of bibliographies that are appended either to books or papers in library catalogues, and so save space, and, moreover, often draw attention to the complete literature of a subject rather than merely to the books on it contained in a particular library. I mention this again because I have just had a good instance occur of the usefulness of this proceeding. The literature of the subject "gastrostomy" has been very scattered and difficult to hunt up; in a paper published in a recent number of one of the German surgical journals the author has appended a good bibliography, containing references to 162 cases. Under the head of gastrostomy, in our index-catalogue, I have drawn attention to this bibliography, so that future searchers will be saved a vast amount of trouble. The value of such a bibliography is that the cases are recorded in the pages of journals, some of them not very accessible, and so can only be put together after immense labour. It seems to me that by indexing such bibliographies as these in our catalogues we are conferring a great boon on our readers.

It is rather curious as an illustration, showing how useless any system of shelf classification is, that if we were to arrange a library containing all the books referred to in the bibliography I have just mentioned, only three of them would be found by any reader going to the shelf containing gastrostomy, all the remaining references being to papers in journals.

It is well-nigh impossible to keep up an index to all the periodical medical and scientific literature; this, however, for current medical books and papers, is done for us by the "Index Medicus," and similar publications, whilst nearly every branch of science has its bibliographical journal. The plan I pursue is, whenever I can obtain a separate copy of any important paper I catalogue it as a book, and of course enter it in the subject index, so that the catalogue in course of time becomes an index to a certain amount of the literature in transactions and periodicals. In addition to this, when we have had to hunt up a list of books and papers on any subject, a note is made of the principal of these in the index, so that the trouble does not occur twice. Any single paper which is difficult to find is also treated in a similar manner, thus saving future labour.